

563 They are not vassals like the Irreguénaten and the Ibettenâten,
631 but are incorporated.

563 According to a tradition reported by Dr. Richer, (1) the
173

1. Les Oulliminden, p. 71.

Issekkemâren are the descendants of the family of the Sagmara, pointed out in the Adrar des Iforas and in the region of Gao by El Bekri. They were driven back by the Sonrhai invasion and came to take refuge among the northern Tuareg while a small fraction remained in the south in the environs /199/ of Timbuktu and today has a marabout character.

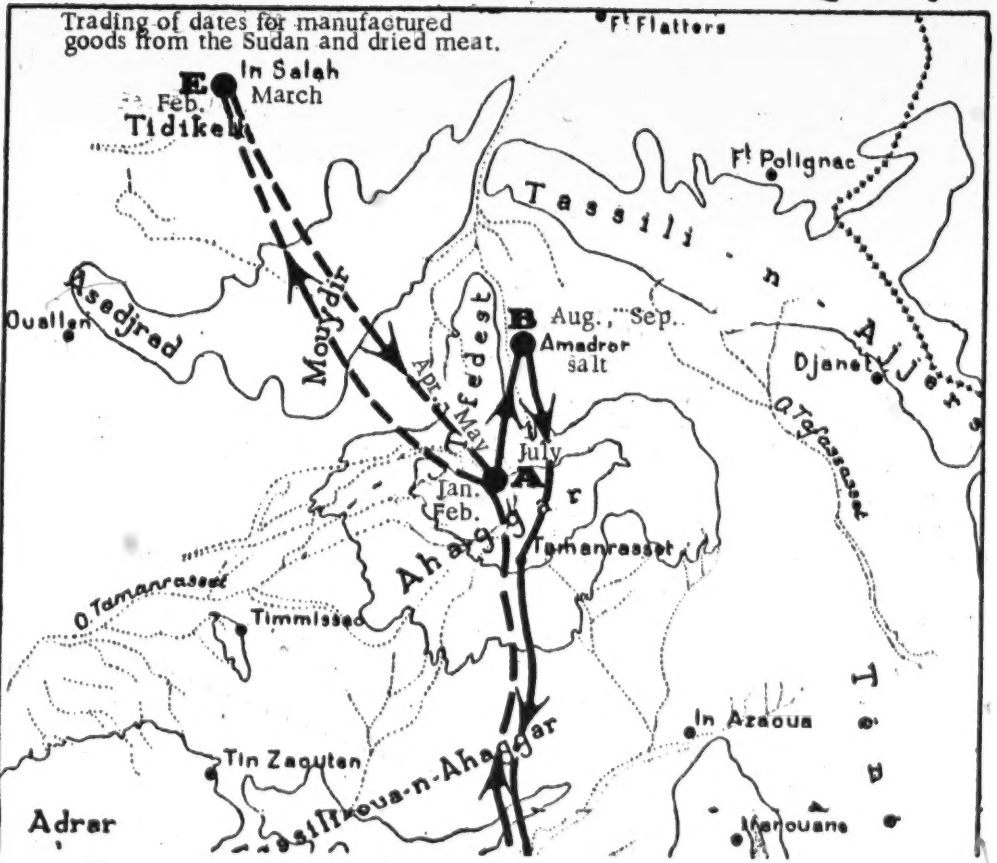
[797] Although they are more Islamized than the other tribes, they are
[197] nonetheless Tuaregized in the sense that they follow Tuareg customs
[648] and speak Tamashek. Many of them speak Arabic fluently, either
because of their origin or because of their constant relations with the Tidikelt.

173 At the time of the division of the Imrad, some tribes were be-
563 stowed upon the Kel Rela, others on the Tâtok and the Tégéhé-
631 Mellet. The tribes attached to the Kel Rela are the Iheiaouen Hâda, the Kel Immidir, the Kel Tâzoulet, the Kel Tâfedest, and the Kel In Rhâr'.

563 They are all great caravaneers who trade a great deal on the
439 Tidikelt markets. They own a large number of camels and their
484 camel raising is particularly renowned.
233

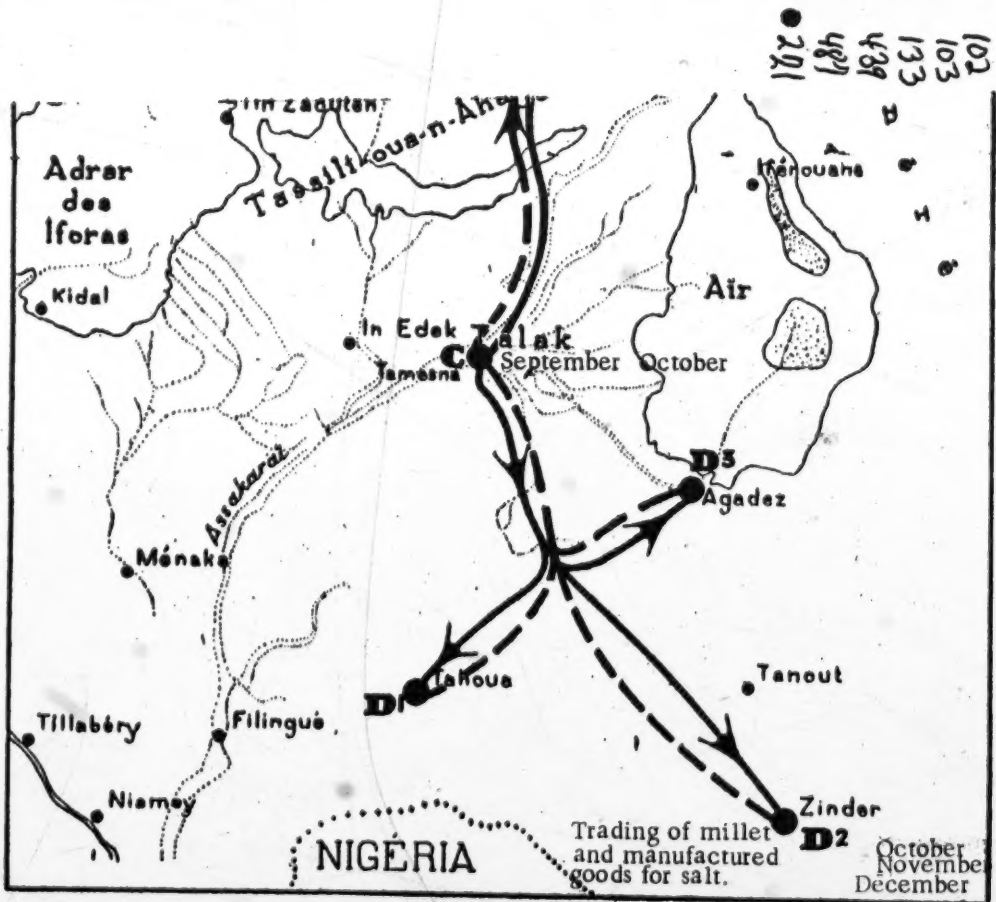
The Iheiaouen Hada. -- The Iheiaouen Hada, also called Oulad Elias or Iheiaouen-n-Temount, are said to be descended from an
[173] Arab woman who was seized at Touat. The word Iheiaouen means in Tamashek, "the grandsons of . . .," so that we must conclude that the people of this tribe are the descendants of a woman named Ada.

They nomadize in the Tâfedest massif near Âdenek, Abezou, In Takoufi, Eguelougai, and Tidessi. During dry periods they lead
• [221] their camels to the Saharo-Sudanese borders in the neighborhood of the Tamafa well.



Map V. Diagram of the caravan cycle of the Ahaggar Tuareg.

- A. Center of transhumance and point of departure of the caravan cycle.
- B. Center of salt extraction.
- C. Region of stocking of salt and of temporary nomadization.
- D¹ D² D³. Center of trade of salt for grain.



E. Center of trade of manufactured goods and dried meat for dates after return from A.

439 cotton clothes, and Sudanese-made lithams /veils/. Then after
 484 two months of rest spent in the Sudan, during which time the camels
 revel in the rich pasture, they all set out again for the Ahaggar,
 where they arrive from January on. February and March see them
 leave again for the Tidikelt or Touat. At that time they take only
 a few camels and exchange the excess manufactured articles which
 they collected in the Sudan and trade dried mutton for dates. This
 trip lasts an average of two months, and toward the end of April
 everyone is back in the Ahaggar, as a rule. There is a rest of a few
 weeks, and everyone thinks about the next salt campaign he is going
 to have to prepare.

[461] Thus we see a complete caravan cycle which, by itself, could
 allow the Tuareg a normal life. But as we have said, it implies a
 state of peace which was previously the exception, as well as an
 amount of work to be furnished which is not always in harmony
 with the warlike tastes of the Imochar.

224 Hunting supplies some employment for the Tuareg, as does
 gathering. But both of them are only uncertain pastimes, without
 221 much profit. The life of the Tuareg may thus be summed up in a
 few lines: basic animal husbandry doubled by brigandage raised to
 the state of an institution, and accessorially by some caravaneering.
 Now we shall see the domestic life of the Tuareg.

/221/

Chapter 2

Dwellings

361 The camp. -- The camp is the traditional Tuareg form of
 621 habitation; it is connected with nomadism which always implies
 animal husbandry. It includes a certain number of people gathered
 together under a patriarchal authority by very close bonds of kinship.

361 When a state of war existed, concealment was a capital necessity
 609 easy to understand. By atavism, it seems that they have taken the
 [72] habit of always placing themselves in spots where they escape the
 investigation of indiscreet glances.

361 They set up their tents on valley terraces, and sometimes in a
 [132] valley itself, if they do not have to fear the rains, which usually fall
 at the end of the summer.

● 22/ Because of the need to seek out pastures, camps are continually
 361 being moved. They stay from one to two weeks, depending on
 whether the grass has been revived by rains or whether it is dry. But
 these moves are never of any great distance, not exceeding seven
 or eight kilometers. If we take as an example the Dāg Rāli tribe
 which nomadizes in the western part of Koudia, we find the camps
 set up in the high mountain valleys, as high as 2,400 meters
 altitude, in summer. In winter, on the other hand, they settle on
 the slopes or in the low parts, seeking places sheltered from the wind.
 This, of course, is in a normal period of average pasture. But
 during the summer of 1940, following a long dry period, the Upper
 Koudia saw a great number of its watering places dry up, and
 vegetation was nonexistent, so to speak. Therefore, all the nomads
 took refuge in the low parts of the massif, in the Outoul, Eferer,
 and I-n-Amegel valleys where water was more abundant and where
 a trace of pasture still remained. At the beginning of September,
 the whole massif benefited from abundant rains. A week later, all
 the tents moved into the mountains in order to use the alpine pastures
 before winter and to save the lower valley grass for winter.

312 /223/ The watering places of Atakor are chiefly natural reser-
 voirs (aguelmam) and springs flowing at ground level in the hollows
 of the valleys. In the middle part, there are mainly rédir (abankor),
 or little wells, dug less than one meter down in the soil to reach
 the water layer, which is often retained by rocky sills. These
rédir are exhausted in time if rains do not come to renew the water
 accumulated in the sandy wadi bed. The lower part of the Ahaggar
 benefits from all the water trickling down from the high mountains

487 the oases of the Tidikelt and Touat which have none. Thanks to
439 the wells of T-i-m-missao and In Ziza, the sheep succeed in cross-
ing the Tanezrouft without too much suffering.

484 This trace movement is evidently engaged in only during
221 the coolest months of the year, that is, from October to April, and
it demands great precautions from the caravaneers.

312 Here is a list of the wells, starting from Timefaouine (A
484 des Iforas), where the animals are watered, as well as the number
487 of days of march between them, according to the information
furnished us by El Bak el Fassi, the Amrar of the Kel Ahnet.

Timefaouine (well, watering place)		
I-n-Gezzal	1 day	} Adrar des Iforas
Efenargh	1 "	
In Ouzzal	1 1/2 days	
Tirek	3 "	} Tanezrouft
Ti-m-missao	2 "	
Tin Senatet	5 "	
In Torha	1/2 day	} Ahnet
Aleg'nenou	5 days	
Tin Khalifa	2 "	
In Belret	1 day	} Immidir
El Khenig	1 1/2 days	
In-Salah	3 "	
Or 26 1/2 days' march.		
Tidikelt		

484 /313/ Depending on whether pasture is more or less abundant,
439 caravaneers suffer more or less losses in their flocks. Sometimes
this loss is complete, sometimes it is none at all.

We saw a Kel Ahnet make the trip at the end of the month of
April, a period which is not favorable, with 35 sheep and not have
to kill more than one of them on the way.

177 In the last few years a number of notables, including the
492 aménokal, travel on horseback, but only when they travel in the
643 Lower Ahaggar which is furrowed by wide valleys, allowing them
133 to avoid rocks.

101 The Ihaggaren never travel on zebus and never use them for
492 transportation. In the Sudan, however, this animal is used as a
saddle animal and a beast of burden.

/321/

Chapter 2

War and Raiding

721 The Tuareg distinguish two kinds of warring expeditions: war
declared between fractions or peoples, which they call annemensi
or amdjer; and raids, edjen or egen, which aim to pillage a camp
or a herd by surprise.

Although war was rather rare, raids were, on the contrary,
quite frequent. They were caused by the atavistic taste of the
Tuareg for this sort of expedition. For the occasion they gathered
together the most disparate elements, all moved by the same spirit
of adventure and battle.

182 When an expedition against a camp was decided upon, those
221 present tried to gather the suitable number of men. They were
361 most frequent in summer, for, since the camps were forced to
721 spread out in the pastures, it was easier to surprise them.

War, on the other hand, was waged in winter, when the
caravans had returned and the provisions necessary for the life of
the tribe had been assured for the long months; this relieved the
warriors of any material preoccupation about the lot of their
families.

727 Each man had to procure arms for himself, and if he did not
426 own his own mehari, he found someone to lend him one; in case
714

233 across much of the land and concentrated
 [137] along dry river bottoms, and the small patches
 of thick, lush, emerald green grass that flourish
 briefly in hollows here and there following
 rainstorms. Pasturage is always either very
 sparse or very scattered in the Ahaggar and
 so the nomadic inhabitants of the area must
 move often, for the supply in the immediate
 neighborhood of a camp is quickly exhausted.
 [3/2] To make life still more difficult, water points
 are often few and far between as we already
 know, and it is not unusual to find good
 pasturage so far from any water that it can-
 not be used for more than a day or two, if at
 all. This combination of circumstances has
 233 made it necessary for the Ahaggar Tuareg
 221 to break up into small and highly mobile camp
 units composed of fractions of clans, or even
 single families, and each of these units must
 move at intervals of usually somewhere be-
 tween a week and a month and often over
 considerable distances, although always within
 the territorial limits of the tribe (fig. 36).

As soon as a camp or constellation of neigh-
 boring camps is established in a new location,
 the head men first set up the daily grazing
 routine of the flocks and then set out at once
 to scout far and wide in search of the next
 pasture to be used and the next camp sites
 that their families will occupy. And so it goes
 the year around, and so the Tuareg of the
 Ahaggar are highly mobile nomads by force
 of circumstances, for they cannot survive
 otherwise in the region which they have made
 their own.

565 It is in the compelling circumstances of
 233 their environment that we find the roots of
 463 the class system of the Ahaggar Tuareg, for,
 182 quite apart from the question of mobility,
 such conditions can be met successfully only
 by a well conceived and firmly established
 division of labor. In the Ahaggar it is the
 nobles of a tribe and the headmen of the vassal
 clans who ride out in search of new pastures
 and at the same time act as military scouts,
 always on the watch for enemy raiders as

[423] *The fundamental difference between the two
 systems lies in the fact that the basis of land tenure
 among the Tuareg is not that of the *beneficium* while
 personal allegiance is not based on the concept of
 the *comitatus*. The true feudal system of mediæval
 Europe was based on the conferring of privilege by
 an absolute ruler (or one of his vassals) on a less

usually satisfied with milk, "akh, " fresh ("akh oua kefaïen" 264
[<] [: : :]) or sour ("akh iezza", # : :), at
the hour when the camels, sheep, or goats come in from
pasture.

The basic food of the Ahaggar Tuareg consists of bechna, 262
"inelli" (white-grain sorghum, Graminaceae), dates, "teïni,"
and milk, "akh." [: : :] +

But their country provides them with many resources 22
which they are careful not to neglect, especially the poor, 556
the "tileqqioun" [: : :] + , who constitute the majority.

All the "imr'ad" go to harvest the grains of "toulloul!" 243
and "afezzou." Women, children, youths, negroes and 221,
negresses go into the wadis
to gather the harvest, which
takes place from May to June
for "toulloul" and from July
to the end of September for
"afezzou." /29/

Usually, before the
harvest several wadis are for-
bidden territory, and camels
are not led there until the
harvest is finished.



Dautheville
Ideles (Koudia)

The produce is gathered
and put into hide sacks. After the grains have dried, they 252
need only to be put onto small trays of "afezzou," called
"tissiï," which are shaken, and the hulls fall off and remain
on top. The grains are ground to powder, and a kind of gruel
is made with water or butter.

The Tuareg are also very fond of "tikamarin" [: : :] + 234
, cheeses as hard as wood which they get from Aïr. They 252
grind them in mortars and mix them in their food. 262
438

They very seldom eat meat, except that of game which 262
they can kill in a hunt: gazelles, mountain sheep, and 224
antelopes. But often they prefer to smoke this game in order 251
to go and sell it in the Tidikelt. 438

104 212	Tuareg Letters (Tifinagh)	Transcription And Value In Arabic Letters	Notes
	ⵉ	ع	Pronounced gutturally. Frequently transcribed as gh in literature.
	ⵓ	س	
	ⵜ	ت	
	ⵢ	ط	Emphatic
	ⴰ	ز	
	ⴱ	ز	Emphatic

- 128 For certain geographical names the mode of spelling is in accordance with that of the maps edited by Institut Géographique National. The pronunciation of vowels is not indicated. At the end of words the Tuareg sometimes indicate vowels with a dot, which may stand for any vowel.

Pastoral Ecology in Ahaggar and Air.

- [36] The Tuareg of the true desert country have their camps in or close to mountain massifs of which the more important are Ahaggar and Tassili-n-Ajjer. Geographically these two regions have many traits in common. In Ahaggar, which rises to 132 3000 metres above sea level, the annual precipitation according to official statistics is between 20 mm and 40 mm. These figures are extremely low, but more characteristic of the desert country is the irregularity of the rainfalls. In some years there may fall no rain at all, while in others precipitation is much bigger than appears from the figures above. Several dry years may follow each other alternating with periods of abundant rainfall. According to investigations by Dubiéf four years out of ten are so dry that rainfall is of no importance for the regeneration of pastures (Dubiéf 1947, p. 7-23). Owing to the scarcity and the fluctuations of precipitation 137 in Ahaggar a persistent vegetation cannot generally exist outside river valleys and depressions which are flooded during heavy rain. In the valleys perennial plants comprise not only grasses and herbs but also tall trees among which tamarisk and acacia are prominent. In dry years the perennial plants have little value as fodder 233 for the domestic animals of the Tuareg. A great many goats may then die from hunger, and to avoid such a disaster some Tuareg take their flocks to the plains of 221 Tamesna or to the Adrar-n-Iforas Mountains where rain is normally more plentiful and grazing better than in Ahaggar. However, even in dry years the majority of Ahaggar Tuareg will remain in their native country with their goat-flocks. For although they run the risk of losing a great many goats during a drought in Ahaggar

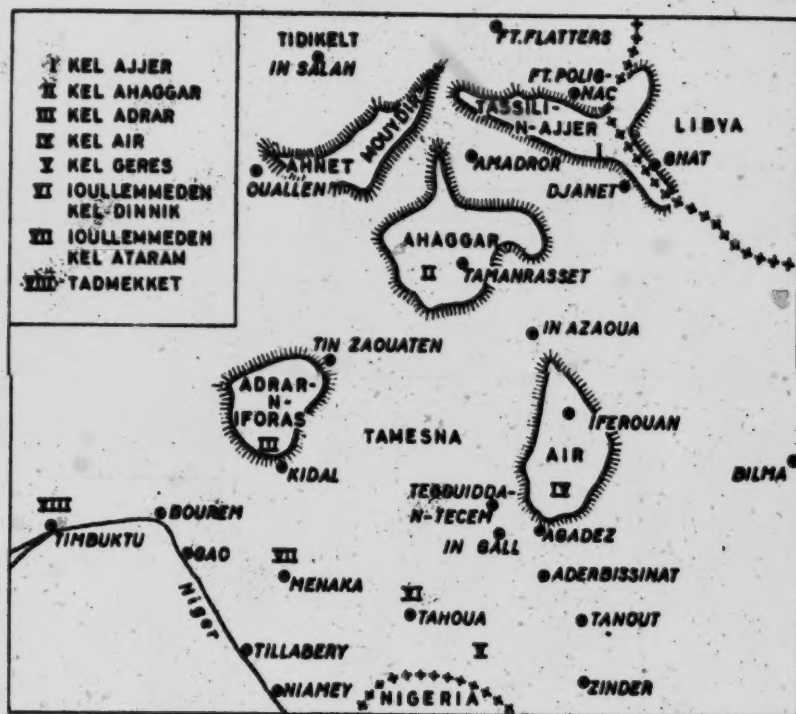


Fig. 1.- Map of the central parts of the Western Sahara and the adjacent Sudanese zone inhabited by the Tuareg, who fall into eight major political groups or federations. Three groups are mentioned in the text are sub-divided into the politically very important drum-groups. The geographical position of the eight groups is roughly indicated by Roman numerals. - The Tadmekket Tuareg (VIII) from about A.D. 1800 were subjected to the Ioullemmeden Kel Ataram (VII) (cf. Richer 1924, p. 96). Scale, 1 centimetre = 160 kilometres.

those surviving, although emaciated, will quickly recover as soon as the rainfall starts again. In addition it is often very difficult to take goats through the barren desert country south of Ahaggar without severe loss. With camels, which are also very important domestic animals, things are different. Camels make a great demand on fodder, they are very valuable, can be sold for rather high prices in the oases, and they have a very slow increment compared with goats. For these reasons it is necessary or desirable to keep herds of camels in the south when pastures are dry in Ahaggar, and camels can be taken through the barren desert country without much difficulty. In dry years many Ahaggar Tuareg have their camel-herds in Tamesna, about 300 kilometres from the camps in Ahaggar, and there are even nomads who keep their she-camels constantly in these regions, where the animals are guarded by herdsmen who are frequently slaves.

paratively rich vegetation of Air contains species found also in Ahaggar, but Ahaggar has Mediterranean plants including several saline species which do not thrive in Air, where there are tropical or Sudanese species unknown to Ahaggar. [137]

Botanically Air is very closely connected with the Sudan, and the mountain massif is within the Sudanese zone of summer rain. It is true that rain at the northern outskirts of Air occasionally falls in winter and may then give rise to scattered pasture of annual plants, but these rains are of no real importance. The important rainfalls of Air occur in the period June-September, and particularly in July and August. As may be gathered from the description of botanical conditions, Air has a much bigger annual precipitation than has Ahaggar: Thus the village of Ifrouan in Northern Air has 74 mm, while Agadez at the southern slopes of the massif has 179 mm. Precipitation will of course vary from one year to the other, but rain will always fall sufficiently for the spring of annual plants. This is the reason for a type of stock-breeding different from that of Ahaggar. In Air the Tuareg are richer in camels, they do not possess so many goats but are very rich in sheep, and most of them have zebu. [233]

The climatic and botanical differences of Air and Ahaggar can be seen more directly from the division of the year into seasons (fig. 2). Air has a summer and a winter season between which there are two seasons termed *akasa* and *farat*. These two words as seasonal terms express the fact that rain and annual pastures in Air are recurrent events, as the word *akasa* literally means "green annual plants", and the word *farat* refers to "dry annual plants". Both words are known also to the Ahaggar Tuareg but are by them not applied as seasonal terms, for in their country rain will not occur every year and may fall at most seasons. [132] 805

Conditions for stock-breeding are very much better in Air than in Ahaggar, but the latter country has a few superior qualities:— 1) Part of the year Ahaggar has a comparatively cool climate which is said to have a positive influence on the lactation of domestic animals. 2) In Ahaggar all over the country there are saline pastures which play an important part in stock-breeding — not because these plants are very nourishing but the animals do not thrive without salt. In Air saline plants are very rare and found mainly to the south and south-west of the massif where water and soil also contain salt. Many pastoralists will migrate to these regions shortly after the rains, while people who do not undertake such migrations feed their domestic animals with salt. Camels and cows have a particular need for fodder with a salt content. 3) Ahaggar has richer wells and a greater number of permanent ponds than Air. This may seem rather peculiar as precipitation is much bigger in the south than in the north. In Ahaggar and Tassili-n-Ajjer some ponds may contain fish apparently unknown in Air. In the latter country there are a great many ponds or even small lakes during the rains but they dry out very quickly when rainfall ceases. Water in Air most of the year is drawn from wells many of which go dry during the hot season; this will frequently lead to quarrels between nomads. [232] [135] [137] [221] 312 [136] [578]

262 Even when grazing is good stock-breeding products are less important for food
 [922] In Ahaggar than in Air as is illustrated in fig. 3 depicting the relative importance
 of milk food and vegetable food. A small part of the vegetable food is provided by
 collecting seeds of grasses and herbs, while roots, stems, and berries of wild plants
 are less significant. The bulk of Tuareg plant food consists of millet, barley, wheat,
 [241] and dates. In Ahaggar many Tuareg have gardens with wheat and barley cultivated
 [563] for them by black-skinned agriculturists generally known by the Arab word
 438 *Haratin* (Izzagayen to the Tuareg). But most Ahaggar Tuareg acquire the bulk of
 262 their plant food from caravan trading with the oases of Tidikelt (dates) and with
 Sudanese villages as far south as Zinder (millet). Even in years of drought they can
 obtain millet from the Sudan in exchange for rock-salt broken at Amador north-
 east of Ahaggar. In Air caravan trading with salt seems less necessary to Tuareg
 subsistence, although there are also in this country Tuareg who trade with salt
 from Amador or Bilma. Most pastoral households however have a fairly regular
 [234] surplus of livestock, butter, and cheese which can provide for the necessary amount
 [563] of millet bought in Agadez or south of the massif in Damerrou. There are also
 241 in Air a great many negroid agriculturists from whom pastoral Tuareg can buy
 262 vegetable products. But millet, which forms the prominent part of Tuareg plant
 [438] food, is grown to a very slight extent by the agriculturists of Air. Dates are important
 in particular to the Ahaggar Tuareg who acquire large quantities from the oases
 of Tidikelt. There are also a few Ahaggar clans the members of which own half-
 wild palms with dates of an inferior quality, as there are Tuareg who have a few
 palms growing in their garden plots. In Air dates are not so important for food
 but even there pastoral Tuareg may have some palms. Among the Tuareg of
 Tassili-n-Ajjer it is very common for pastoralists to sow wheat and barley in the
 river valleys when these have been heavily flooded (Nicolaisen 1954, p. 83, 88),
 and this primitive agricultural method was apparently known also to the Ahaggar
 Tuareg in the past (Duveyrier 1864, p. 372). More recently many pastoral Tuareg
 [312] of Ahaggar and Air have taken up agriculture by means of irrigation. There seems
 [221] to be a tendency towards semi-nomadism among the Tuareg who are very dependent
 on vegetable food derived from agriculture.

The Negroes Of The Sahara.

136 In the above section on Tuareg ecology it is stated that Air climatically and
 botanically is closely linked with the Sudan. This is true also zoologically as the
 Air fauna contains a great many species of birds and mammals characteristic of
 tropical Africa. The bird life of Air seems very akin to that of the Sudanese savan-
 nah, and, for instance, guinea fowls are extremely common even in valleys of the
 northernmost parts of the massif. As examples of tropical mammal life in Air we
 may here mention that the wart-hog lives in Central Air, and that oryx antelopes

[Text continues on p. 76]

given by Nicolas (Nicolas 1950b, p. 474f.). The clans differ greatly in size ranging from 633 to 42 individuals. The average figure for a clan is about 950. 614
[27]
[162]

A clan is generally termed *tasuit* which seems to have the meaning of "a palm from which fingers issue". Many clans have an ancestress whose name is known to the members. The Kel Ferouan Tuareg however have very little genealogical knowledge. They rarely know their kinsmen more than three or four generations back, and they cannot trace the relationship between all clan members and their ancestress. Traditionally a clan is a group of matrilineally related persons, but there is nowadays a strong tendency to acknowledge the patrilineal principle for clan-membership. A more detailed description of Tuareg clans will be given in the later chapter on the Ahaggar Tuareg. [196]
[611]

To-day the Air Tuareg live most of the year in camps consisting of three to five barrel-vaulted tents covered with mats (fig. 5 & 13). The inhabitants of these small camps generally form an extended family, e.g., 621
596
[342]

- 1) husband, wife, married sons, and their children.
- 2) two brothers, their wives, married sons, and their children.
- 3) a brother and a sister together with their spouses and children.
- 4) husband, wife, unmarried children, husband's mother and mother's sister, and his sister's daughter with her husband.

In the rainy season (*akasa*) and in the beginning of the following dry season (*tuat*) several small camps of extended families may camp together. The only reason for this is said to be that kinsmen appreciate each other's company. I have myself never seen such big camps. During my visit to Air 1955 the annual pastures were not so well developed as to allow the concentration of many domestic animals in one and the same place. It is said that camps in the past were bigger than nowadays. The Air Tuareg were then constantly running the risk of being raided by pastoral Arabs, Tebu, or Tuareg from other groups. 22
361
621
[173]

Clan-endogamy is claimed an ideal by many Air Tuareg, but exogamous marriages are common and have occurred also in the past. The members of two clans hold that they have intermarried since the remote date of their establishment. They claim descent from a brother and a sister who married two cross-cousins, and the preferred type of marriage among the Kel Ferouan Tuareg is in fact that to a cross-cousin - ideally to a mother's brother's daughter. This may be seen from the composition of 38 marriages which were as follows: 582
614
582

Mother's brother's daughter.....	7
Father's sister's daughter.....	4
Classificatory cross-cousins.....	6
Other kinswomen.....	13
No blood-relationship between husband and wife....	8

Marriages total... 38

582
[773] Marriages to cross-cousins are justified by myths telling that as long as there have been Tuareg there have also been marriages of this type. There are also legends or stories to prove that such marriages have always been good, other types of marriages bad. Cross-cousin marriage is further said to be preferred because it results in an exchange of individuals and livestock between two families. Finally [581] cross-cousin marriage is considered the best type of marriage because institutional [605] joking exists between cross-cousins. For although joking between cross-cousins will stop with marriage, the mere fact that there has once been joking between husband and wife is said to reduce troubles and quarrels between them.

605 Among the Kel Ferouan joking between cross-cousins goes together with
606 joking between brothers-in-law and sisters-in-law, and also with avoidance be-
221 tween children-in-law and parents-in-law. Radcliffe-Brown has explained these two different types of behaviour as parts of one and the same system within which they have an identical social function, namely that of preventing conflicts (Radcliffe-Brown 1930, p. 36 ff.; 1932, p. 90 ff.). I have elsewhere treated this theory (Nicolaisen 1957a, 1957b, 1959b). Here I shall content myself with the statement that my Tuareg material seems to confirm the theory set forth by Radcliffe-Brown, the more so as I have been able to find cases of transition between the two outwardly most different modes of behaviour. The extent to which joking is carried on between partners of the same sex is always dependent on age. Between two male cross-cousins or two brothers-in-law there will be little or no joking if they are of very different age, and in very extreme cases joking may in fact change into avoidance. It is also interesting that in most Kel Ferouan clans there is institutional joking between a man and his mother's brother's wife. According to the rules of preferential mating she may later become his mother-in-law, whom in that case he must avoid very strictly. This custom, however, does not seem to be found in [184] the Iforas clans which were adopted into the Kel Ferouan drum-group about a hundred years ago. I think that Radcliffe-Brown's theory on joking and avoidance is very important, and I shall later in this study present material to support it.

601 The particular position of cross-cousins is indicated in the kinship system (fig. 8) which also shows that there are particular terms for children of cross-cousins and for certain matrilineal relatives. As clans, according to traditional rules, are groups of matrilineally related persons it would seem natural that succession to clan chieftainship followed the maternal line. This is also stated by Nicolas, who claims the line of succession to be as follows:— 1) the brother of the deceased chief; 2) his mother's sister's son; 3) his sister's son. According to Nicolas this rule of succession also holds for the Ahaggar Tuareg and for the Kel Geres (Nicolas 1950c, p. 492f.). Rodd states the traditional rule of succession in Air as matrilineal. But he claims 614 that the deceased chief's sister's son is the first in line, and he refers to the fact that 613 this rule has often been followed at the election of Sultans (Rodd 1926a, p. 151 f., 463 ff.).

It is frequently mentioned in the literature on various Tuareg groups that the

1. [p. 102, category 11b. — Analyst]

361 /92 cont. / to the departure of the herds, to the means of
166 moving the old people and babies. The camp is hardly ready
to move before nine in the morning, although the work has
been in progress since sunrise. About three in the afternoon
the caravan halts for the night; the animals must then be un-
loaded, the asabers must be put up, the meals prepared, the
animals milked; and the next day everything begins over
again.

166 There is one regular annual migration; when the wheat
and barley ripen in the gardens, it is April, and all the caravans
● 221 returned from the Sudan have stored their millet in silos --
361 then nearly all camps head for the agricultural centers. The
goats are left in the desert in the care of the Negroes. Each
little agricultural center /93/ then sees a gathering of the
Tuareg, who come to supervise the harvest and live at the
expense of the khammès, according to the provisions of the
agricultural contract. This is a joyous period, and tendi and
ilougan are held every day.

In connection with these migrations, it must be noted that
the Tuareg do not act exactly according to the necessities
of the climate: a dry period should logically lead to an exodus
by the tribes toward Sudanese territory, where the herds would
be better fed in virtually permanent pastures, and yet the
tents and goats stay in the Ahaggar. Political reasons do not
suffice to explain this contradiction between custom and the
obligations of the climate. Perhaps this custom may be seen
as the effect of long habit reinforced by sentimental factors.
It is certain that away from the Ahaggar and their own terri-
tories of nomadization, the Tuareg are ill at ease; they show
their delight on returning to their mountains. There is a saying
that the Tuareg are great travelers but not great nomads; the
essential reason for this remark is certainly the profound attach-
ment they manifest for their soil, which seems incompatible
with the nomad mentality.

261 /93 cont./ To sum up the migrations of the Kel Ahaggar,
166 let us say that they extend in a radius of about 100 kilometers,
● 221 within the tribal lands, but that the men may lead the herds,
according to the times, toward pastures 1,000 kilometers
from the family camp, and that an annual series of caravans
sees them cover 15° of latitude.

The harratin cultivators are only sedentary on occasion;
each year there is a large human movement from one agri-
cultural center to another. There are three reasons for this:
the Tuareg, owners of the soil, are no longer able to furnish
the hartani with enough seed or to fulfill the agricultural
contract; water begins to be lacking in a center, or digging
foggaras becomes impossible; lastly, the exhausted land
needs rest. It is thus that, from one year to the next, an im-
portant, well-cultivated center may become /94/ insignifi-
cant and even deserted. It appears to be impossible to es-
tablish a cycle for these agricultural migrations.

Tuareg Furnishings

352 Lightness and flexibility are the two essential qualities of
492 Tuareg furnishings. All of these objects must be transported
on the backs of animals; weight, therefore, is the principal
enemy; moreover, it is easier for the animals to carry loads
capable of molding themselves against the animals' bodies.
415 Thus we find a whole assortment of sacks, chiefly leather ones,
in the Tuareg equipment.

These sacks are tanned in such a way as to keep the
leather very flexible; but the process employed is suitable
only for extremely dry climates; transported to France, the
Tuareg leathers seem to come alive again, they swell with
humidity, then give off a disagreeable odor, and finally
become unusable.

415 All of these sacks are decorated. Some are colored and
531 bear designs put on with dye or are decorated with tinted

- * 233 Each of the three vegetational zones of Ahaggar has its advantages and disadvantages. If we consider
 824 a good year when rain has fallen abundantly with a resultant regeneration of all fodder plants, the
 137 *Atakor* zone has very excellent pasture. For the plains and the stony mountain slopes are then entirely
 132 covered with annual plants which by the Tuareg are considered the very best fodder. The Tuareg also
 133 claim that the upper mountain zone is preferable because of its cooler climate, which has a beneficial
 influence on the lactation of domestic animals. The disadvantage of the *Atakor* zone is the lack of
 acacias to which can be added the scarcity of fuel. The *Tarayin* zone possess characteristics of the *Atakor*
 zone and of the *Abada* zone. The *Abada* country is botanically very different from *Atakor*. It has
 annual pastures of great value when abundant rainfall has been experimented and it also has valuable
 pastures of perennial plants. With heavy rain the *Abada* country is excellent for stock-breeding, and
 fuel can be found everywhere. But the *Abada* country is hotter than are the zones of *Tarayin* and
Atakor.

If rain falls abundantly all over Ahaggar there is good pasture in all three zones. But rainfall is more
 frequent and heavier at high altitudes than in the *Abada* zone, so that *Atakor* normally has by far
 the best pasture of annual plants which spring up late in summer or in autumn. The *Abada* zone on
 the other hand has the very best pasture of perennial plants, notably acacias that grow around the
 lower parts of the valleys which are always flooded when it rains in the high mountains.

- 221 The fluctuations of plant development determine the nomadic migrations of the Ahaggar Tuareg.
 * 233 A few tribes have their normal grazing grounds in *Atakor* (e.g., the *Dag Rali* and the *Kel Tazulel*).
 824 They camp in this zone at most seasons to let their goats and sheep feed on fresh and dry annual pasture.
 132 In dry years and during the hot summer season they may move to the *Tarayin* zone where there are
 perennial fodder plants, but they rarely camp in the *Abada* country. Many tribes have their normal
 grazing grounds in the *Abada* zone (e.g., the *Agh-en-tehlé*, the *Ayt Lowayen*, the *Itheywen Hada*,
 and the *Kel Relu*), but move to the *Atakor* when annual pasture is good in this region. They live in
 132 *Atakor* with tents and flocks when annual plants are green, while the rest of the year they camp in
 the *Abada* country to let their animals feed on acacias and other perennial species. Finally there are
 two tribes (*Téghé-n-Ejia* and *Iklan-en-tawsit*), the members of which camp in the *Abada* country all
 the year round even when rich annual pasture is found in *Atakor*. However, members of these tribes
 may send their camel herds to the *Atakor* zone, accompanied by herdsmen, while tents and flocks
 remain in the lower country.

- 221 With the exception of a few noble households which keep up their old tradition to subsist largely
 * 233 on camel's milk, the Ahaggar Tuareg do not keep their she-camels in Ahaggar unless there are excellent
 824 pastures of annual plants in this area. They take their camels to pastures far away from Ahaggar,
 132 notably to the Tamesna region where they have their animals guarded by herdsmen who are frequently
 132 slaves. In very dry years there are very few camels in Ahaggar - just the animals needed for riding
 and transportation. It is in fact very easy to take camels to distant pastures, and it is most necessary
 to give these animals the utmost care as they are most valuable and their breeding is a very slow process

- * 233 (cf. p. 56). Goats do not need such excellent fodder as do camels. They can eat almost everything, but
 731 in dry years goats may also suffer severely from lack of suitable fodder. This was the case in the year
 132 1954/55 when I stayed in Ahnet and in Ahaggar. In the small camps of three to four tents each it was

Nomadic Migrations in Ahaggar

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*²³³ normal every day to loose one or two goats which died of hunger. The goats were too thin to be mated, and even in winter there was no milk, or so little, that it was all consumed by small children. In spite of these very severe conditions most Ahaggar Tuareg stayed in Ahaggar with their flocks which subsisted on dry perennial plants and annual plants that were two years old. Conditions were extremely bad in the region of Ahnet, and about half of the Ahnet Tuareg left their country to go southwards with their camps and goats, to the regions of Ti-n-zawaten. In severe drought periods some Tuareg may move their camps far outside of Ahaggar, but even then most of them will remain in their native country for extensive goat migrations are difficult and cannot be realized without a loss of the meagre animals. Most Tuareg therefore prefer to remain and to avoid the strenuous journey connected with these migrations. They may loose many animals during a drought, but they know that sooner or later rainfall will occur so that pastures will regenerate quickly to let the animals grow fat to yield milk and to be mated. The increment of goats is extremely quick in comparison with that of camels.

*²³³ Stock-breeding conditions are on the whole not very favourable in Ahaggar, but pastoral Tuareg of this region have developed an economic system which secures their existence even in very bad years of extreme drought.

¹³⁷ In the introductory description of Tuareg environment it was stated that the Ayr Massif and the surrounding plains have far better possibilities of stock-breeding than Northern Tuareg countries. The broad river valleys of Ayr are very rich in persistent plants which also grow on slopes and in depressions outside the valleys, and the spring of annual pastures is an annually recurrent event. One informant told me that there had not been any drought in the Agadez region throughout the many years the French had reigned over Ayr. At an unknown date in the past, it is said, a very severe drought persisted in the country for a period of seven years, and the Tuareg who had many goats and sheep fed these animals on charcoal. Since then rain has fallen every year and though more

*²³³

Fig. 96. Tuareg feeding his riding camel with boiled tea leaves which are considered excellent fodder for camels. Ahaggar, the *Dag Bati* tribe.

*¹³²₂₃₃ abundantly in one year than another there has always been rain enough to allow the annual pastures to spring up.

*²³³₈₂₄ In Ayr there are three species of trees or bushes which remain green all the year round, viz. *thezgin* (*Salvadora persica*), *adent* (*Boscia senegalensis*), and *turza* (*Calotropis procera*). They are extremely common, and the two first species play a certain role for fodder during the hot and dry summer season (*éwilen*), but dry annual plants then constitute the best fodder for all domestic animals. The annual plants comprise various species; around Agadez they are mainly grasses, but the small thorny seed-plant *ageruf* (*Tribulus terrester*) is also very important. These tender plants spring up shortly after the rains but they wither even before rainfall stops at the beginning of the *rarai* season. The perennial fodder plants are of little value in the hot season. The *afezu* grass (*Panicum turgidum*), which is extremely common everywhere, germinates at the beginning of the rains and is dry and contains little nourishment in summer. Acacias form very important fodder-plants for camels and goats, but they are also of little value at this season when they defoliate. The two most important acacias are *afagag* (*abser* in Ahaggar) (*Acacia Raddiana*) and *tamat* (*Acacia flava*). The *afagag* acacia germinates shortly after the first rains (*akasa*) and has its highest fodder value in the season of *rarai* when the fruit pods fall to the ground providing excellent fodder for all domestic animals. The *tamat*-acacia starts germinating somewhat later and its fruit pods, which are equally important for fodder, do not fall until the beginning of the season known as *tahsit*, at which period the fruit pods of the *agar* tree (*Maerua crassifolia*) also fall. For southern Ayr it can be said that grazing conditions are tolerably good most of the year. They are extremely good when annual plants are green during the period of *akasa*, and they are bad in summer (*éwilen*) when the lactation of domestic animals is low.

Grazing conditions within the Ayr Massif are much more favourable than in Ahaggar, but one thing is lacking:— There are very few saliferous plants. Thus, for instance, there are very few tamarisks (*temeyut* = *Tamarix aphylla*; *azawa* = *Tamarix gallica*), which are found only within limited areas of the Massif; species of *Salsola* are very rare, and the very important saliferous plant, known to the Northern Tuareg as *aramas* (*Atriplex Halimus*), is not found within the Massif. The Ayr Tuareg therefore have to feed their animals with salty earth which can be dug in certain parts of Ayr; or with Bilma salt, which plays an enormous part for most stock-breeders of Ayr and adjacent regions. The Ayr Tuareg cannot so easily take their flocks and herds to salt pastures as can the Northern Tuareg. But there is south and southwest of the Ayr Massif a narrow belt of salt-containing soil and water. This region is known to the Tuareg as *Azawar* because of its particular reddish soil. With this particular type of soil, well water and pools will contain some salt, as do most plants, and many Tuareg of the Ayr Massif migrate to the *Azawar* country at the end of the rains to allow their animals to benefit

• (221)₁₂₄ from the salt-content of the water and plants there. There is another reason why some Ayr Tuareg, who have their normal grazing areas within the Massif, migrate south and westwards into the plains, namely the appearance in these regions of a small annual plant known as *emchéken* (*Ipomoea verticillata*). The Ayr Tuareg consider it one of the very best fodder plants for camels, goats, and sheep, but claim it to be less valuable for cattle and donkeys. — At the end of the rains the Ayr Tuareg who migrate to the *Azawar* country camp among pastoralists of different and distant regions. At this season most *Kel Geres* Tuareg migrate northwards to camp around Tegidda-n-edrar and Tegidda-n-

221 tagayt, while the *Iwlemmeden Kel Dennek* at this period will camp around Ingal. Many Southern
 *233 Tuareg leave the savannah country to avoid its heavy rainfalls and stock-diseases to let their animals
 824 benefit from the salty water and plants in the *Azawar* country.

133 In the country west of the Ayr Massif, the Tamesna Plains, there is in addition to the Ayr Tuareg
 162 a numerous population of Ahaggar Tuareg who live constantly in these regions. These plains are
 137 botanically different from the mountains. Perennial vegetation is scarce though there are some *tamat-*
 *233 *acacias* (*Acacia flava*), but there is a very rich vegetation of annual plants of great importance to
 824 domestic animals. Among these plants can be mentioned *alwat* (*Schouwia purpurea* ssp. *Schimper*),
 which is very valuable for camels and also good for sheep, *adreyal* (*Astragalus Vogelii*), and *tagellet*
 (*Colocynthis vulgaris*). The two latter plants are valuable as fodder for all domestic animals. It is
 noteworthy that these three species of annual plants last longer than other annual species. They do not
 wither at the beginning of the *farat*-season, but remain fresh and green all through the winter until
 about *tabsit*.

It is evident that Tuareg knowledge of botany is extremely comprehensive, and that they use this
 knowledge to make stock-breeding as rational as possible. They may perhaps not be so rational in
 protecting pastures, for they cut *acacias*' boughs to feed the kids resting in the camps, and it is most
 possible that they also overgraze certain pastures. However, the grazing grounds are very vast in
 comparison with the number of pastoralists, and I believe that overgrazing and arboreal devastation
 take place mainly around villages and towns where the flocks of sedentary people graze continuously
 in the same area. In Ahaggar the valuable fodder plants and plants which are important for col-
 lecting are often protected for two or three months in order that they may become fully developed
 (cf. p. 150, 179).

*233 The Tuareg take great care that their animals do not lack water. It is true that camels and also
 donkeys can do without water for many days even in summer, but at this season camels should prefer-
 ably be watered every two or three days, and goats are always watered every two days when the weather
 is hot. In winter the animals are not watered so often, and this is true particularly if the animals feed
 on fresh annual plants. Camels can do without water even for weeks and months under such favourable

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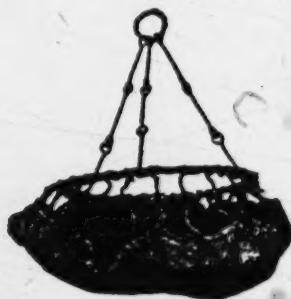


Fig. 97. The leather bucket known as *qle* to the Northern Tuareg. The leather is tied to an iron ring made by blacksmiths. Collected in Ahaggar by Olufsen. Dimension of the iron ring: 0.275 m in diameter. (N.M. G. 1.51).

Tribal Sections and Territories in Ahaggar

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Sub-areas of the territory of the *Agah-en-tehlé* tribe(The tribe is divided into three sub-tribes named *Kel Tarhawhawt*, *Isandan*, and *Kel Arefsa*)

Tenants	Value of sub-area	Annual land-rent to the <i>Amemkal</i>	
SAMA ALATOKH, chief of the <i>Agah-en-tehlé</i> , chief of the sub-tribe <i>Kel Tarhawhawt</i> , leader of the section <i>Kel Twes</i>	Cultivation grounds at Tarhawhawt and I-n-dalag Hunting of barbary sheep Wild donkeys for domestication	2 donkeys	614 613 423 551 311 224 643 651
OMANA, <i>khalifa</i> (leader) of the <i>Ikenkaren</i> section of the sub-tribe <i>Kel Tarhawhawt</i>	Hunting of barbary sheep Collecting of wild seeds	3 goats	
ABERGALI, <i>khalifa</i> of the <i>Kel Tarayin</i> section of the sub-tribe <i>Kel Tarhawhawt</i>	Hunting of barbary sheep	2 goats	
KHOFA of the <i>Kel Tarayin</i> section. No position as leader	Cultivation grounds at I-n-agriwal and I-n-dalag. Hunting of barbary sheep. Wild donkeys	2 donkeys	
DEYNI, chief of the <i>Kel Arefsa</i> sub-tribe forming only one section	No particular value	No land-rent	
AKAWALI, chief of the <i>Isandan</i> sub-tribe and leader of the <i>Kel Afara-he</i> his section	Cultivation grounds at Tahifet Hunting of barbary sheep Wild donkeys	1 donkey	
HANU, <i>khalifa</i> of the <i>Kel Azernen</i> section of the <i>Isandan</i> sub-tribe	Cultivation grounds at Tamanrasset In the past wild donkeys	1 donkey	
KHOSENI, <i>khalifa</i> of the <i>Relayddin</i> now attached to the <i>Agah-en-tehlé</i> tribe	<i>Khoseni</i> is in command of the <i>Relayddin</i> territory to which all members of the <i>Relayddin</i> have equal rights. Each of them gives two goats annually to the <i>Amemkal</i>		

The Ahaggar Tuareg have various terms to indicate the size of a camp. A large camp is always known as *amezzar*, while a small camp is called *erfwen* or *tamezzar*. These two terms are used to distinguish between goat-camps and section camps (camel camps) though they do not have so absolute a meaning. Two camps placed close to each other (100-200 metres between them, whether of the same tribe or not) are known as *heregen* (or *amezzar n heregen*) and a camp very far from wells or water pools is called *aharagen*. Apart from the migrations between the *Abada* and the *Atakor* zones and those beyond Ahaggar in case of severe drought, nomadic migrations of the Ahaggar Tuareg are not very extensive and occur within a limited area. The Ahaggar Tuareg are not "grands nomades" like

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22)

- 221 many tribes of the northern desert, and migrations are on the whole independent of caravan trading.
 [24] Migrations are to some extent determined by agriculture in cases where the households possess
 [42] irrigated gardens cultivated on their behalf by the *Harratin* (*Izeggaren*). Some goat-camps may move
 [56] their tents close to the agricultural settlements when wheat and barley are harvested in April. Date
 [245] palm-owning Tuareg of two vassal tribes (*Iklan-en-tawsit* and *Ikechchemaden*) will also visit the oases
 of Silet and Tibeghin where dates are harvested in August and September. But the Tuareg visiting
 these oases will generally not take flocks and tents with them when collecting their dates, which are
 * [23] harvested mainly by black-skinned *Harratin* of Abalessa. It should once more be mentioned that most
 Ahaggar tribes in dry years keep their camel herds outside of Ahaggar - mainly in Tamesna - and
 the members of a section have their herds guarded collectively in these distant regions.

423 The territory of a vassal tribe is generally divided into sub-areas, the right to which is vested in
 311 individual tenants. These sub-areas may be valuable grazing grounds, but most of them have an
 economic value in other respects also. Some are important hunting grounds for barbery sheep or for
 the catching of wild donkeys for domestication, others have a value for the collection of wild seeds,
 or have soil and water suitable for agriculture. A few areas possess all these qualities. I have studied

614 the division of the tribal territory into sub-areas only in the two tribes *Dag Rali* and *Aguh-en-tehlé*.
 613 In the *Aguh-en-tehlé* tribe there is a certain correspondence between sections and sub-areas in the
 423 way that most sub-areas belong to individuals of the matrilineage which forms the core of a particular
 section. Consequently the Tuareg of the *Aguh-en-tehlé* tribe sometimes speak of sub-areas as section

territories. However, two tribal sections living outside the tribal territory have no particular sub-
 areas, and one section has two sub-areas, the rights to which are vested in two individual tenants
 (cf. p. 149). In the *Dag Rali* tribe there are more sub-areas than tribal sections, and some sub-areas
 have two tenants who belong to distinct tribal sections, members of which all have the right to use

[42] these sub-areas (cf. p. 148). When a tenant dies his rights to a sub-area should be taken over by a
 maternal kinsman who lives in the section to which he belongs matrilineally. Tenants of sub-areas are
 frequently section-leaders. In the lists p. 148-149 where I mention the sub-areas in the *Dag Rali* and

[43] *Aguh-en-tehlé* tribes are indicated the names of tenants, the value of their sub-areas, and the annual
 land-rent paid to the *Amemukul*, who is the true master of the land inhabited by tribes of the *Kel*
Rela drum-group.

423 For the land-rent (*chéhé-n-amadal*) paid to the *Amemukul* the tenants obtain the following rights
 422 over their sub-areas:—

(1) They can forbid grazing within their area or in part of it in order that plants may germinate
 and become fully developed. For plants valuable exclusively for grazing domestic animals the period
 of protection will be up to two months, but certain plants which have seeds valuable for collecting
 are protected for three months.

(2) They have the right to half of all the wild donkeys caught in their areas.

[224] (3) They have the right to part of all barbery sheep killed. Foucauld says that in certain hunting
 grounds the hide and the meat of a slain animal must be given to the tenant, while the hunter can
 keep only the head, the paunch, and the intestines (Foucauld 1922, p. 81; Foley 1930, p. 43 f.). My
 own information agrees with Lhote's statement that the tenants in general have the right to the hide,

361 akasa period when there is green annual pasture, but the large camps have no co-operative functions
 821 and no particular leader. The small camps join together to form big camps because their members are linked to each other by bonds of kinship, and consequently like to come together.

361 Most of the year the Ayr Tuareg live in very small camps around wells, and certain camps remain
 221 on almost the same spot throughout the year. However, most camps move about in the akasa period, and later, at the end of the rains, many camps move southwards and westwards to the salt plains of Azawaj.

DIVISION OF LABOUR IN STOCK-BREEDING

462 Before we consider other activities, we shall briefly describe the division of labour in stock-breeding according to sex.

462 In all Tuareg groups noble women do very little work. They engage in a few very esteemed crafts
 565 such as embroidery, neat decoration of leather work, and in the north they cut ornamented milk-
 [567] bowls from wood. The true domestic duties of a noble household are performed by slaves. This to some extent is also true of other social classes among the Northern Tuareg, while the Ayr Tuareg vassals have very few slaves nowadays. But even in vassal camps among the Northern Tuareg women have their duties and engage in all kinds of domestic work, also in stock-breeding. In the two groups of Northern Tuareg the division of work in stock-breeding can be seen when one enters a tent of a vassal camp:—

462 One half of the tent (the left part) is occupied by the woman and contains such implements as are
 *233 connected with tanning, leather-work, cooking, butter- and cheese-making, and generally all imple-
 342 ments connected with the breeding of goats, sheep, and donkeys. The other half of the tent (the right
 [567] part), occupied by the husband, contains saddles and all other objects connected with camels. The tending of goats, sheep, and donkeys is the task of women, while camel-breeding is the business of men.

462 Before initiation Tuareg boys may be occupied with herding goats, sheep, and donkeys, but when
 *233 they have adopted the veil they should preferably take care of camels only. There are, however, a
 [567] few occasions where men engage in tasks connected with goats and donkeys:—

Goats like any other animal can be killed only by adult men, who also undertake the skinning and partition of the meat.

Castration of he-goats and rams may be done by men, but it is said that it is also performed by women.

When goats suffer from certain diseases they may in a few very special cases be taken care of by men. Thus when a goat has broken a leg and wooden splints are applied to the fracture this is generally performed by the husband of the household to which the animal belongs.

When goats and sheep are lost in the desert they may be searched for by men mounted on camels.

On the whole there are not many situations where the assistance of men is needed in tending goats and sheep, and most men have so little to do with goat-breeding that they do not know the exact meaning of many colour terms for goats.

Collecting in Ahaggar

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ajako. According to Foucauld a small annual edible plant growing in the Ahaggar Mountains at an altitude above 2000 metres (Foucauld 1951-52, II, p. 712). Maire mentions this plant as unidentified (Maire 1933, p. 263).

Collecting is mainly the task of women, but males - particularly uninitiated boys and slaves - also participate. Seed-plants are generally harvested by rubbing the ears of the plants between the fingers, but the *tullult* grass (*Aristida pungens*) is cut with a sickle (*amreh*; Fig. 143 a-b) to be thrashed and winnowed like wheat and barley. Edible roots are frequently collected merely by hand. However, a digging stick (*elaweg*; Fig. 123) provided with an iron point is also used to dig up certain wild plants such as *ahahel* (*Cistanche Phelypaea*) and similar root plants. This digging stick is characteristic of vassal women who use it for many different purposes, e.g., to make holes for tent poles.

The very best among the above mentioned seed-plants is the *tullult* grass (*Aristida pungens*). Its seeds are collected or harvested by certain Tuareg inhabiting the lower parts of Ahaggar, but are important particularly to the Tuareg living in and around Tasilé-n-Ajjer. Within the Ahaggar Massif the most important seeds are those of *afezu* (*Panicum turgidum*) and *tawit* (*Chenopodium Vulvaria*). The right to collect these seeds is free to everybody, and Tuareg of the *Abada* zone may send their slaves to the *Atakor* zone to collect *tawit*-seeds in the mountain plateau of Asekrem. The species of *afezu* and *tawit* are sometimes protected by an ban on grazing for three and two months respectively in order that their seeds may grow ripe for collecting. The right to put a ban on grazing of the two species belongs to the Tuareg in whom territorial rights of a sub-area are vested (cf. p. 150). It is said that under very favourable conditions a single household may collect some hundred kilos of seeds of the two plants mentioned. This may seem rather impressive, but even in good years when milk is abundant collecting will not provide pastoral Tuareg of Ahaggar with sufficient vegetable food, for seeds of wild plants are far less nourishing than are grains of wheat, barley, and millet. The collecting of wild plants important for food is as dependent on climatic conditions as is stock-breeding. In dry years, when domestic animals yield little or no milk at all, there will also be no wild seeds for collecting.



Fig. 127. Very small bag known as *elem* ("skin") made from a kid's scrotum (*tigassat*). The bag contains a piece of resin of the *tamar* acacia (*Acacia senegal*). This resin is eaten by the Tuareg as a remedy against stomach-ache. Ahaggar, the *Afuh-en-nehle* tribe. Dimension of the piece of resin: 0.07 m long. (F.M. 149 a-b).

Collecting in Ayr

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a dish known to the Ayr Tuareg as *teđerka*. For this purpose the pounded seeds may also be mixed with pounded dam palm nuts. 222

achefer (*Sorghum virgatum*). A tall grass the seeds of which are swept together when fallen to the ground. They are used for porridge. 262

agazagi. Edible seeds of a grass. They are swept together when they have fallen to the ground, and are used for porridge. 252

agehagehu. Seeds of an annual plant. When they have fallen to the ground they are swept together by means of a straw bundle. They are pounded in a millet mortar to be eaten as *teđerka* without any further preparation.

malokhiya (*Corchorus tridens*). A plant growing in the bush though also grown in gardens. The leaves of this plant are dried and thereupon pounded in a millet mortar to be used as an admixture to porridge-sauce.

abezey (*Cassia tora*). Leaves of this plant are plucked with the hand, or, if the plant is dry, shaken into a plaited bowl. They are pounded and used as an admixture to porridge-sauce.

kal'aker'i (*Cistanche* sp.). It is said to be known as *achellewen* among Tuareg of the *Kel Ewey* group. The edible roots of this plant are dug out with a stick. They are pounded and boiled for a kind of porridge.

geheku (*Glossanema Boveanum*). An annual plant with small lacteal fruit which is eaten as a relish without any preparation.

These are the plant species collected by the *Kel Ferwan* of Southern Ayr. It may happen that some of these plants are destroyed by locusts, but in most years there are excellent possibilities of collecting wild seeds. Most plants are collected late in summer after the rains (at the season of *rarat*), or in winter (*tigrest*). It is said that in good years more than a thousand kilos of wild seeds can be collected by the members of a single household, but even this amount of wild seeds does not answer the need for vegetable products. Collecting is of secondary importance to the *Kel Ferwan* Tuareg. Very few of the plant species mentioned are collected if there is abundant millet. The main exceptions are the plants used for sauce-admixture, and the *ichiben* seeds. The latter are collected even by Tuareg who have enough millet, because porridge made from these seeds is considered a very delicious dish. 222

The two groups of Northern Tuareg and also the Tuareg of Ayr acquire their vegetable food products mainly from agriculture, which occupation will now briefly be described. 433

[text continues on p. 183]

241 1. p. 424). Rodd thinks the implement seen by Barth was clearly an importation from the north (Rodd 1926a, p. 133), and Feilberg assumes that if the plough was once known in this southern area it might perhaps have disappeared together with shifting cultivation (Feilberg 1931, p. 200). All this may be so, for there has been much contact between Ayr and the regions of Fezzan and Tripolitania in the past. But Barth does not say that he saw a plough but "a kind of plough", which may perhaps point to a type of large hoe drawn by men like that described from Senegambia by Feilberg (cf. Feilberg 1931, p. 169 f.).

243 The plough is unknown in the extensive area inhabited by pastoral Tuareg but this is not so with a kind of shifting cultivation. Pastoral Tuareg of Tasilé-n-Ajjer sow wheat and barley along the river valleys when these have been heavily flooded. Sowing is then done in a very simple way:— Holes are dug into the sandy soil, usually merely with the hand, and a few seeds are put into these holes. Wheat and barley thus sown grow in tufts with a space of 0.30 to 0.50 metres between each, and there seem to be about fifty straws in a normal tuft — the largest tuft I have seen contained about 130 straws (cf. Figs. 128-129). The plots cultivated in this way are generally very small, and the scattered wild plants growing in the plot are not always removed before sowing. The corn plots are left completely to themselves until harvesting, which is done with a sickle (Fig. 143). Primitive corn growing of this type cannot be practised continuously from one year to another in Tasilé-n-Ajjer, and the Tuareg of that region say that a household never grows enough corn in this way to meet its annual needs.

[178] The primitive method of corn growing without artificial irrigation is unknown in Ahaggar nowadays, but it seems as if it was known in the past (cf. Duveyrier 1864, p. 372), and the Ahaggar Tuareg have a particular term (*tawgest*) for a field cultivated without artificial irrigation (cf. Foucauld 1951-52, III, p. 1466).

Rodd states that rain-grown crops could be raised most years in certain parts of Ayr and that in earlier days a fair amount of cereals seems to have been produced in this way in Ayr (Rodd 1926a, p. 133). There is little doubt that this statement is correct, and I think that even in parts of Ahaggar millet could be raised without irrigation in most years, for millet has a very short period of growth.

[22] In Ahaggar (at Abalessa) it is sown in June-July and is harvested in September. Though millet plots are irrigated they are never watered much, and never to the same extent as wheat and barley which are grown in winter. In regard to Ayr, millet in southern villages of the Massif very frequently ripens in two months, and late in summer, at the end of the rains (*akasa*) or in the early dry season (*rarai*).

[252] I have frequently seen well-developed small plots of millet and sorghum around deserted Tuareg camps where a great many seeds are always lost on the ground during the pounding and winnowing of millet

[138] for porridge. These self-grown plots, however, are not utilized by the Tuareg as the comparatively small yield is quickly eaten by the numerous millet-eating birds. Owing to these birds it would be difficult for pastoral Tuareg to grow cereals in flooded valleys like the Tuareg of Tasilé-n-Ajjer, and it is partly for this very reason that the sedentary agriculturists of Ayr grow very little millet. Millet could easily be raised without artificial irrigation during the rains, and, in fact, millet was grown by shifting cultivation not far from Agadez as recently as up to the French occupation of Ayr.

245 In addition to the species of grain mentioned above there is one very important plant which can be grown without artificial irrigation, namely the date palm. In Tasilé-n-Ajjer there are river valleys

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Fig. 130. Semi-wild date palms in the canyon-like Ahaggar valley of Tassili-n-Ajjer. The palms are owned and harvested by pastoral Tuareg.

245 (Ahaggar and Eherir) where "semi-wild" palms are abundant. These palms are owned by pastoral
 221 Tuareg of various tribes. Their dates are harvested in the autumn when Tuareg palm owners with
 342 their slaves live in straw-huts or huts covered with palm leaves situated among the palm trees.

Similar plantations of palm trees which are left to themselves most of the year are also found in
 245 Ahaggar, notably at Silet-Tibeghin. Part of these palms are owned by members of the *Dag Rali* tribe
 423 (the sections of *Kel Tamasasset* and *Kel Terhenanet*) and by members of the very small tribe, the
 165 *Heckhemaden*. The palm-owners give as an annual payment to the *Amemkal* of Ahaggar one bunch
 545 of dates from all palms which have more than two bunches. The yield of another part of the palms
 165 belongs to the vassal tribe *Ikkan-en-tawait* (the sections *Kel Silet* and *Kel Tahalra*). For usufructs,
 165 members of these two sections make a collective annual payments to the *Amemkal* comprising four
 245 bags of dates, twenty goats, two ropes of goat's hair, and five water bags. The dates are harvested by
 221 Tuareg of the above mentioned tribes in August-September. Harvesting is done with sickles and is
 142 finished in three to four weeks when the palm-owners return to their camps with dates packed in bags
 564 and loaded on donkeys and camels. In harvesting their dates most Tuareg are assisted by black-
 142 skinned agriculturists (*Harratin*, or *Izeggaren*) of Abalessa who are given a certain amount of dates
 142 for their work. These agriculturists build the huts in which the palm-owners live during harvest (cf.
 142 p. 338 f.).



Fig. 133. The large water basin (*ilhemt*) from which water is led into the gardens. Ahaggar, Abalessa.

(*teguhamt*, or *tahafi*) from which another canal (*tahafi*, or *teguhamt*) leads water out into the garden, which is always divided into a large number of garden beds (*igenmmun*, sing. *agemmun*) surrounded by low ridges and separated by narrow irrigation canals. The large water basin serves to regulate watering, which outside of the very cold season is done during the night. A flat stone with a hole in its middle and known as *aneff* is placed between the basin and the canal leading water into the garden; water for irrigating the garden flows through this hole when irrigation is needed at night, while the hole is closed by means of a cotton stopper during the day. The basin is thus filled with water during the day and its water runs into the garden at night (cf. Figs. 131-136).

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[22] The irrigation systems described are most important for the cultivation of the winter crops of wheat and barley. The Tuareg word in Ahaggar for wheat is *éred* which is a collective name for several types of wheat known as *elkhamra*, *elmansuri*, *amekkawi*, *yati*, and *menga*. These special names seem to be derived from Arabic (cf. Foucauld 1951-52, III, p. 1058, 1211 & IV, p. 1789; Maire 1933, I, p. 246). According to Maire these types of wheat belong to the species *Triticum aestivum*. I have never myself seen fully-grown wheat in Ahaggar and was thus unable to collect ears for identification by botanists, but seeds brought home from Ahaggar and Tasilé-n-Ajjer have been identified by Dr. Hans Helbaek as belonging to common bread wheat. Barley is known to the Tuareg as *timzin*. Threshed seeds brought home from Ahaggar have been identified by Dr. Helbaek as belonging to the six-rowed type (*Hordeum vulgare*, though some, he thinks are perhaps of the two-rowed type (*H. distichum*). Barley, like wheat, is a winter crop though less common. At Abalessa I was told that two thirds of the seed-crops grown in winter were wheat, while only one third was barley.

[22] Wheat and barley are grown in the same way. Sowing is done in the autumn (*tober*), and the seeds are put into the garden beds with the fingers. Harvesting takes place in the month of April (*ibiri*) and is performed with a sickle (Fig. 143). The growing of wheat and barley is a very strenuous task for irrigation agriculturists. Watering is done for the first time immediately after sowing. When I stayed at Abalessa, in the month of January 1955, the tender plants of wheat and barley were watered two days in succession, and the 10-12 gardens belonging to the same *foggara* were irrigated in succession

[132] in this way. At that time of the year the plots are not generally watered at night because of the cold temperatures which may be below zero.

- 243 Wheat and barley grown in winter constitute the most important crops in Ahaggar, but, as mentioned,
 [262] the gardens are also cultivated at other seasons, and crops of millet and sorghum taken in summer
 [171] are most important subsistence for irrigation farmers in Ahaggar. Millet is known to the Tuareg as
 [221] *énélé*; it seems to be the same species as that so widely grown by African agriculturists of the savannah
 [461] countries (*Pennisetum typhoideum*, or *P. Americanum*). Millet is sown in June-July and harvested in Sep-
 [388] tember, or in October. Little work is involved with the cultivation of this plant which is never watered
 much (cf. p. 184), and the agriculturists do not carry fresh soil to the millet plots as they do to plots of
 wheat and barley. Species of sorghum are less important than millet. The common species is known as
abora or *tafsut* (*Andropogon Sorghum*). Another species is known as *tallak*; it has smaller seeds than
 the species just mentioned, and is grown mainly because of its stems, which are reduced to powder
 to be used for dyeing skins red (cf. p. 182).

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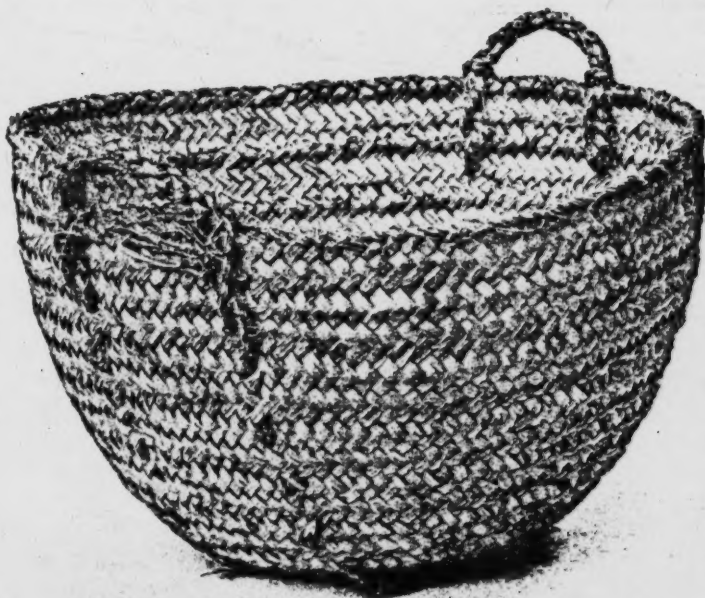


Fig 135. Basket (*tésmit*) of the type used for transportation of fresh soil to old garden land. It is plaited from straps of date palm leaves (*agum*) and has handles of rope made from date palm bast (*asaw*). Soil is also carried to gardens in larger baskets (*teparint*, pl. *tepar*) loaded on donkeys. Ahaggar, Abelessa. Dimension: 0.22 m high, 0.35 m in diameter at the rim. (N.M. G. 5285).

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Independent Agriculturists in Ahaggar

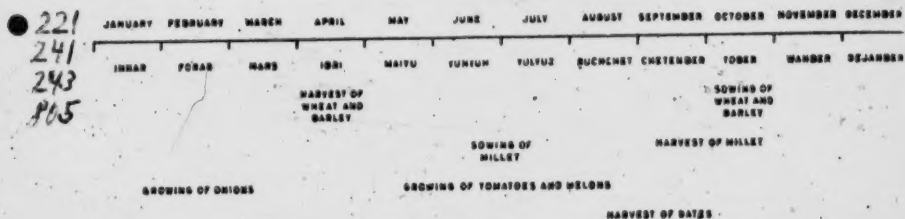


Fig. 139. Horticultural calendar from Ahaggar.

The Tuareg and the negroid agriculturists have a lunar calendar of twelve months corresponding to the Arab calendar, but a lunar calendar has no practical value for the indication of seasonal agricultural activities. The Julian Calendar is known to some people of Ahaggar as well as to other Berbers of the Sahara and the Atlas. Tuareg names of Julian months are given above. Very few people in Ahaggar know the exact beginning and the end of the twelve Julian months, but a few names are used as seasonal terms: *innar* "midwinter", *mars* "beginning of spring", *ibri* "early harvest" (of wheat and barley), *maitu* "beginning of summer", *tober* "late harvest" (millet).

241 which no definite figures can be given, while the yield of fruit trees growing in the garden plot does not necessarily belong to the agriculturist. These trees frequently belong to pastoral Tuareg.

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262 I think it can be estimated that an agricultural household with its own garden produce about a thousand kilos of vegetables food products annually for its private use. We can add that though the members of an agricultural household live mainly on vegetable food products they also acquire a certain amount of food from livestock, which normally comprises a few goats and sheep, and perhaps one or two zebus. Conditions of stock-breeding are not always favourable to people who live continuously on the same spot, but it is advantageous to the agriculturists of Ahaggar, who live close to valleys with some pasture, that they are able to feed their animals on green garden products when pasture is badly developed and thus avoid the disaster of a drought. It is also an advantage to most agriculturists that they do not have to water their animals which can drink freely from the irrigation canals. The agriculturists can kill a few goats or sheep annually, they obtain milk and a little butter to be used mainly as a sauce for bread and porridge, and they make cheese of the *awles* type (cf. p. 224), but they never make cheese from fresh milk as do many pastoral Tuareg when milk is abundant. The agriculturists also breed fowls and pigeons, and some of them have an important meat supply from hunting with steel-traps (hares, jackals, fennecs, and ravens). Collecting, on the other hand, is of little or no value to irrigation farmers of Ahaggar.

241 The economic position of agriculturists who work without any particular obligations towards pastoral Tuareg is tolerably good. It is less favourable to those who grow winter crops also on behalf of the Tuareg, as do most cultivators. Some of them irrigate the garden plot with water raised from wells by oxen which may belong to the cultivator or to the Tuareg. But most agriculturists who work for the pastoral Tuareg irrigate by means of *foggara*. It is very strenuous work to dig a *foggara* canal, and co-operation is needed not only for this but also for the maintenance of the whole irrigation system. The gardens are individually tended by the agriculturists, who co-operate in the *foggara* work under the leadership of a headman known as *amfar u efeli*, that is "chief of the *foggara*". This headman is

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Fig. 142. Tomatoes (*somatem*; *Solanum lycopersicum* and a type of melon (*tsenzen*; *Cucurbita* sp.) cut into slices and left upon a layer of straw for drying. A basket (*tsenis*) filled with ears of millet (*ndellé*) is seen in the front. Ahaggar, Ahl Azzi Arabs.

from Constantinople, and the true *Imeggedezen*, it is said, came from the same region. They were kinsmen of the Sultan who came to see their relative Sultan as guests or visitors and therefore acquired the name "*Imeggedezen*". They founded the city of Agadez, though it is said that sedentary people of the *Itésen* group of Tuareg were already living at this place. The city of Agadez seems to have been founded in the 15th century shortly after the foundation of the Sultanry which was established 1405 A.D. (cf. p. 414 f.). I shall return to the problems connected with the establishment of Agadez in a later chapter, and shall here content myself by saying that Agadez was established as a trading post, which also became the seat of government of Ayr, and the town never seems to have been a true agricultural settlement. There are no gardens, and even drinking water is very scarce and fetched by the women from outside of the city at wells and in river beds. The *Imeggedezen* are mainly city dwellers though there is a small population of agricultural *Imeggedezen* that possesses gardens at Alarses, a few kilometres north-east of Agadez.

In Barth's days the main language of the sedentary Agadez population was *Sonray* (Barth 1857, I, p. 504). This is still spoken by a few people within the city, and it constitutes the traditional language of the people inhabiting the oasis of Ingal (1.430) west of Agadez. These *Sonray*-speaking people of Ingal, known to the Tuareg as *Isawefen*, subsist mainly upon their palms which yield dates of an excellent quality, and they do not otherwise engage much in agricultural activity. In the winter season some of these people settle in Tegidda-n-tésem towards the north to work in the salt pits. Trade and crafts are also important industries to the sedentary people of Ingal, which owns a market.

Throughout the Ayr Massif there are many agricultural villages in which the farmers live in straw-huts, and in houses built of stone and mud (cf. p. 327 ff., Figs. 246 ff.). Most people of these villages belong to the group of *Kel Ewey* Tuareg, but there are also some agriculturists who belong to other Tuareg groups, e.g., the *Itésen* (cf. p. 330, 412, 414, 417 f.). The *Kel Ewey* Tuareg originally came from the north as true fair-skinned Tuareg, but in Ayr they mixed with an ancient negroid and Hausa-speaking population that subsisted on agriculture.

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433 there will be one entirely dry year throughout, during which stock-breeding products have little or no value as food, and in such years of dry pasture there will also be very few wild plants to collect. Hunting, which plays little part for most Tuareg nowadays, is also of little value in an entirely dry year when many game animals die or migrate to other regions with more favourable pasture. It would seem obvious for pastoral Tuareg to do the same and to take their animals to grazing grounds outside of Ahaggar - particularly to the southern plains where pasture is normally better than in their own country. We have seen that most Ahaggar Tuareg in bad years have their she-camels far from Ahaggar in the Tamesna plains or in the country north of Adra-n-Foras. We have also mentioned that, under very severe conditions, camps of Ahaggar and Ahnet may move to these southern regions with their flocks, though extensive goat-migrations are not always profitable. But most Tuareg remain in Ahaggar even in very dry years with their camps and flocks. Some of the animals will die, and none of them can be mated so that the flocks may rapidly decrease. During such years of drought the Ahaggar Tuareg live so to speak exclusively on agricultural food products of which they get only a part from their gardens grown by sedentary agriculturists (the *Harratin*, or *Izegaren*). It is mainly through caravan trading that the Ahaggar Tuareg acquire their vegetable food products. Their two important trading expeditions to the Tidikelt oases and to the Sudan are carried out annually for the main purpose of acquiring dates and millet.

437 Trading with the Tidikelt oases (Awlef and In Salah) is based mainly upon a surplus of goats, camels, butter and cheese, and on dried meat. But many Tuareg who obtain large amounts of millet from the Sudanese trading expedition also sell part of their wheat grown in their own gardens in Ahaggar, and Sudanese articles bought during their south-bound trading expedition. In a dry year some Tuareg may choose not to visit the Tidikelt area as they have too small a surplus for trading. The south-bound caravans, on the other hand, are rarely prevented from going as their main trading object is rock-salt of an excellent quality mined at Amadjar north-east of the Ahaggar Massif. Both north-bound and south-bound caravans will set off in autumn when the hottest season has come to an end, that is at the end of September or at the beginning of October.

447 The caravan route from Tamanfaset in Ahaggar to In Salah in Tidikelt is about 750 kilometres, and the route is rather difficult because pasture is normally lacking for three to four days of the journey. Most Tuareg who cross this part of the desert therefore bring with them large supplies of the dried *tallul*-grass (*Aristida pungens*), which also serves as fodder for the pack-camels during the stay in the oases around which there is little pasture. The journey takes about twenty days in each direction, and the north-bound caravans return to Ahaggar again already in December or in January.

449 The traders return with their camels loaded with dates of which a part may be re-sold in Ahaggar (Tamanfaset), but they also buy European cotton and other European articles, which are cheaper in the north, and woollen blankets woven by sedentary people of the northern oases.

454 The south-bound caravans are very extensive. The towns visited in the south are Agadez, Tawu Tanu, and Zinder. The distance from Tamanfaset to Zinder is, as the crow flies, about 1200 kilometres, while the distance from Tamanfaset to Amadjar, where salt is mined, is about 300 kilometres. In total the caravan journey from Ahaggar to Zinder and back again for many Tuareg amounts to more than 3000 kilometres. The south-bound caravans are organized as follows:— Slaves take the

Caravan Trading of the Ahaggar Tuareg

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Fig. 149. The market place of Agadez. In the front negroid Hausa men roasting small pieces of meat on a spit; in the background Tuareg camels offered for sale.

484 pack-camels to the salt pit of Amadgor to mine salt in the hot season. They load the camels with salt
487 and bring them to the camp where further preparations for the journey are made. When the caravans
[317] have started southwards they stop in the Tamesna plains and rest there for at least one month to allow
[432] the pack-camels to feed on annual pasture, and, if necessary, to exchange the pack-camels with others
kept by the Ahaggar Tuareg in Tamesna. Thereupon the caravan will continue towards the millet-
growing towns and villages of the Sudan to bargain with the Hausa. The caravan returns to Ahaggar
[22] again at the end of March or at the beginning of April, so that the total duration of a south-bound
caravan is up to six or seven months.

433 The Sudanese millet trade is of extreme value to the subsistence of the Ahaggar Tuareg. It is particu-
439 larly important to their economy that they obtain millet for non-nomadic products transported by
camels, which are mainly bred outside of Ahaggar. The millet trade is consequently not much influ-
enced by Ahaggar's changeable climate. According to official statistics, the Ahaggar caravans in 1946
exported 375 tons salt, and imported 720 tons millet, while the cereals grown in Ahaggar amounted
to 197 tons (cf. Malaurie 1953, p. 344). According to Galan vegetable food grown in the gardens of
Ahaggar in 1950 (a bad year) amounted to 121 tons wheat, 5 tons millet and barley, and 4 tons of
tomatoes - about 10 kg of wheat and 0.5 kg of millet, barley, and tomatoes per person (Galan 1951,
[465] p. 233). We see from this that the amount of cereals acquired in the Sudan far exceeds the amount
grown in Ahaggar, and as we have mentioned, the millet trade is also important for the establishment
of Tuareg agriculture in their own country where this cereal is used for payments to cultivators. It can
also be added that the Sudanese caravan trade is more important to the Tuareg than appears from
[435] the figures above. For salt is much more valuable than millet, and for one load of salt the Tuareg
receive from four to fifteen loads of millet - in 1946 the price was fifteen to one (cf. Malaurie 1953,
p. 344). It is evident that the Tuareg could not take all this millet back to Ahaggar. Most of it is re-sold

Cheese

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Tuareg but also by the southern groups and by Arab pastoralists of the Sahara; it is also known in the Atlas, and is on the whole widely distributed in Northern Africa. This type of cheese is known to the Northern Tuareg as *takammart* and it is manufactured as follows:— Fresh milk is heated and then poured into a large wooden bowl (e.g., *tarehut*) (Figs. 195a-b). The milk is curdled into a mass of cheese by means of a rennet (*akammur*) consisting of the abomasum of kids that have never tasted anything but milk. The curdled mass of cheese is pressed with the hands and with a piece of straw-mat (*éseber*) in order that the liquids may separate. The mass of cheese is formed into small rectangular pieces of cheese which are left on the little straw-mat for about one day. They are then removed to be dried finally on a platform (*tahaga*, *tafalkat*) made of branches.

Cheese made from fresh milk is known to the Ayr Tuareg as *tekenmart*; it is manufactured to very great extent and much in the same fashion as just described from Ahaggar. The abomasum of little kids or lambs to be used for rennet is named *tedeyanz*, and the Ayr Tuareg add parts of an annual plant known as *ekochemaren* (*Caralluma Moutrei*) in order that the milk may curdle quickly. The Ayr Tuareg also use little mats plaited from stems of the *afezu* grass (*Panicum turgidum*) to press and form the rectangular pieces of cheese; the Ayr Tuareg make mats (*ésebert*) (Fig. 168) particularly for this purpose, while the Ahaggar Tuareg generally use an old piece of a tent mat (*éseber*). In Ayr the rectangular pieces of cheese are dried on bunches of hay placed in trees (acacias), or on the top of the mat-covered tents.

The *takammart* or *tekenmart* type of cheese made from fresh milk is in high esteem as food among all pastoralists of the Sahara. It is generally eaten when newly-made and soft, though it may also be stored. The Ahaggar Tuareg make this type of cheese only when milk is plentiful, while the Ayr Tuareg manufacture it most of the year though the main season of cheese-making is the season of *akaza*.



Fig. 156. Skin bag of the *demarsley* type used to sour milk before churning. Ahaggar, the *Afuk-en-sahel* tribe. Dimension: 0.37 m high. (P.M. 176).

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Fig. 254. Cylindrical huts with conical roofs. The Fezzan area. Photograph by Dr. Erik Smidt, Copenhagen.

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Duveyrier states that in such fixed camps ("campements de station") the noble Tuareg of Tasilé-n-Ajjer live in tents, while the vassals use straw-huts (Duveyrier 1864, p. 403). The Tuareg of Tasilé-n-Ajjer agreed that this was so in the past, but nowadays noble Tuareg and vassals alike prefer the straw-hut in summer because the leather tent is extremely hot at that season. Barth also states that many vassal Tuareg of the *Kel Ajjer* do not live in leather tents like the noble Tuareg, but in round, conical huts akin to those of Central Africa, and he says that many Tuareg of the *Ajjer* group have an intermediate position between sedentary and nomadic people (Barth 1857-58, I, p. 257). Everything seems to indicate that the straw-huts (*ikebran*) used among the Tuareg of Tasilé-n-Ajjer form the traditional dwelling of most vassal Tuareg, and it seems as if the round and conical *ikeber* type is of more ancient date with them than the square or rectangular type A.5.b.

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Cylindrical huts with a conical roof are used by the Tuareg who live in the Fezzan area, and they are also here somewhat mixed with the square or rectangular straw hut. This is stated by Despois who describes these dwellings in some detail (Despois 1946, p. 83 f.). A round hut with conical roof similar to the hut mentioned above from the Tuareg of Tasilé-n-Ajjer, but having 16 forked sticks around the central post instead of 9, is described in detail by Scarin from the Tuareg of the Radames region (Scarin 1934, I, p. 112 f., Fig. 90-94 & phot. 42).

In Ahaggar cylindrical huts or houses with conical roofs are less common than in Tasilé-n-Ajjer. I have seen very few of them, and they seem to be of different origins as follows:—

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Huts akin to the round *ikeber* type described above from Tasilé-n-Ajjer were seen in the *Amenukal's* camp close to the village of Abalessa, and the same type occurred at Silet where it was used by Tuareg pastoralists of the tribes *Ikkan-en-tawati*, *Ikechchamadén*, and *Dag Rali* during their stay at Silet to harvest dates. These latter huts were made from very thick poles of palm trunk and their construction was identical to that described from Tasilé-n-Ajjer above (cf. Fig. 253 a-b). The palm trunk poles were

Mat Tents

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1952, pl. II, 4; Desplagnès 1907, pl. CVI p. 396). Various pastoralists within the huge area of Tibesti, 342*
Borku, and Ennedi also use barrel-vaulted mat-covered tents. These are very different from Tuareg 171
mat tents (cf. Biassuti 1933, Fig. 2, p. 173; Despois 1946, pl. XXII; Le Coeur 1937, p. 39 & 1950,
p. 192, pl. XXVI, 99; Schiffer 1957, pl. IV; Krönerberg 1959, pl. III; Fuchs 1961, p. 18 ff., pl. IV).
However, a mat tent described in detail by Chapelle has a structure which includes pronged sticks
and horizontal bars (Chapelle 1957, p. 227 ff.), and a Tebu tent from Bilma now in the IFAN Museum
at Niamey resembles the mat-covered Ayr tent in having two horizontal cross-bars at the narrow
sides - each bar resting upon seven vertical pronged sticks.

We presume that Tuareg mat tents constitute a very ancient and traditional type of dwelling, which, 342*
perhaps, was originally covered with mats of grass-stems (cf. p. 350 f.). We venture to advance this 174
theory, the more so as other types of Tuareg tents less elaborate in their structures show very close
affinities with the arched mat tent. Our theory, however, gives rise to one important question:— Is 182
the elaborate structure of Tuareg mat tents well fitted to pastoral life? 342*

It is evident that some of the Tuareg, who live in mat tents, and notably the *Bella*, are semi-nomads,
and Capot-Rey says that "— les populations qui l'ont adoptée ne se déplacent presque plus; —"
(Capot-Rey 1953a, p. 222). This is not correct. Mat tents like that described in B.I.a. are used by 221
true nomads, who move much during the rainy season to find the best annual pasture for their domestic
animals. At that season many pastoralists move their camps of barrel-vaulted tents about once a
week, and though some of them prefer to erect their tents according to the simple *tafala* method (cf.
B.I.f., p. 356), most nomads will erect the tent in the ordinary fashion. It may be added that even the
Kel Geres who come to Southern Ayr at the end of the rains have with them their mat tents which
they erect correctly. There are, it is true, many Tuareg possessing mat tents who remain almost on
the same spot throughout the year, but this is equally true of many Tuareg with skin tents. The mat
tent is a true pastoral dwelling type. It is not very difficult to put up though it takes more time than
does the erection of most skin tents. It is also not very difficult to transport the comparatively elaborate
structure of normal mat tents. With few exceptions the pastoral *Kel Ayr* who live in and around the 182
Massif use donkeys for tent transportation. The light tent mats are simply used as a kind of pack- 342*
saddle, being rolled up and placed over the back and along both sides of the pack-animal. The curved 342
boughs and rods which form arches and semi-arches, and the comparatively few vertical sticks with
the two cross-bars are tied up into parcels which are fastened over the mats at the animal's sides. I
have frequently seen a tent, together with the very heavy wooden bed (*édabur*) and various domestic
utensils, being transported by two donkeys, and a normal tent can be transported by a single donkey
without much difficulty. As a further indication of this I produce a photograph showing the move- 342
ment of a camp comprising three ordinary tents, three wooden beds, and the necessary household 342
implements and provisions, and it will be seen that all this is transported by six donkeys (cf. Fig. 266).
On the whole, an ordinary mat tent is neither very difficult to erect, nor difficult to transport. It is 182
more difficult to erect the mat tent than the skin tent, but skin tents very often constitute a heavier 342*
burden. The sheet of skin, or more correctly leather, is heavier than the covering of mats, and though
it is true of many skin tents that they have a less elaborate structure than the mat tents, the former
need a system of pegs and poles to fasten the sheet, and these have to be transported except where

* 342
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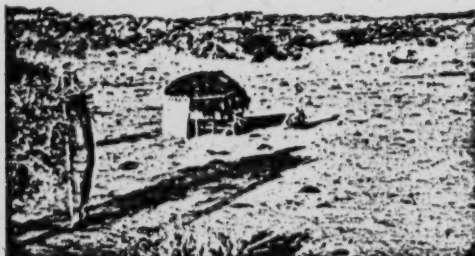


Fig. 270. An arched barrel-vaulted tent covered with a sheet of skin. In the background two arched mat tents. In the foreground to the left two cotton bows. Ayr, the *Kel Tédalé* tribe.

* 342 true structure, and structurally there is a great diversity of tent types. It seems as if these tent structures can be divided into a few main groups which I shall describe in detail.

B.2.a. *Skin tents of arch construction.*

Tents which have one or more arches, generally placed at right angles to the longitudinal direction are widely found in Tuareg country. They are in fact more common than appears from the literature which has been so far published on Tuareg culture. The wide distribution of this particular structure in skin tents is interesting, the more so as it is related to the structure of mat tents. There are the following types of arch structures:—

B.2.a.1. This tent was seen in a camp of the *Kel Tédalé* Tuareg of North-western Ayr. It is known that skin tents are found among them (cf. Joubert 1939, p. 252 f.), but they have never been described. The Ayr Tuareg say that in the past many Tuareg of the *Kel Tédalé* lived in skin tents which, however, are less common among them nowadays. This agrees with my own experience. I have visited several *Kel Tédalé* camps, but I have only seen the skin tent here mentioned. This was found in a camp of three tents, the two others being ordinary mat tents. The skin tent I saw in this camp was also of the normal structure used for mat tents in Ayr, though shorter. The lower part was partly covered, not by a mat plaited from *dum* palm leaves, but by an *afezu* mat.

● [221] B.2.a.2. Under this heading I describe two identical tents seen in a camp of *Iregenaten* Tuareg who belong to the Ahaggar federation but have their traditional grazing grounds west of the Ayr Massif in the Tamesna Plains. The camp was actually situated in the region between Tegidda-n-tésem and I-n-abanjerit, where perennial vegetation is extremely scarce and mainly comprises scattered *tamat* acacias (*Acacia flava*). The camp visited had eight skin tents among which were the two of arch construction as follows:—

[824] Both tents were very small, and their wooden structure was made of boughs of the *tamat* acacia (*Acacia flava*). In the middle of the tent and at right angles to its longitudinal direction there was an